

## CSCI 361: Reading Assignment # 12

Your Name: \_\_\_\_\_

Due: Tuesday, Nov 12, in class

Assigned reading for this lecture:

- Sipser Third Edition 7.2 (The Class P)

Read the background on polynomial-time TMs for problems such as PATH and CONNECTED presented in the book: **this material is a review of CS 256** but do pay attention to how the input and output of the algorithms are stated for Turing Machines.

Read the Proof of Theorem 7.16 on Page 290 which we will discuss in next class.

### Questions:

1. What is the dynamic programming subproblem? That is, what is stored in  $table(i, j)$ ?
2. What is the base case of the dynamic program?
3. How is the subproblem  $table(i, j)$  computed based on the solutions to the smaller subproblems?